

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions,
and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A peptide comprising an amino
acid sequence SMAKEGV (SEQ ID NO: 8), wherein,
said peptide antagonizes the influence of toxic or
vitality-damaging noxae of neurodegenerative diseases, and
said peptide is selected from the group that consists
consisting of

~~DVFMKGLSMAKEGV (SEQ ID NO: 1)~~

VFMKGLSMAKEGV (SEQ ID NO: 2) ,

FMKGLSMAKEGV (SEQ ID NO: 3) ,

MKGLSMAKEGV (SEQ ID NO: 4) ,

KGLSMAKEGV (SEQ ID NO: 5) ,

GLSMAKEGV (SEQ ID NO: 6) ,

LSMAKEGV (SEQ ID NO: 7), and

SMAKEGV (SEQ ID NO: 8) .

~~MAKEGV (SEQ ID NO: 9)~~

~~AKEGV (SEQ ID NO: 10)~~

~~KEGV (SEQ ID NO: 11)~~

~~MDVFMKGLSMAKEG (SEQ ID NO: 12)~~

~~MDVFMKGLSMAKE (SEQ ID NO: 13)~~

~~MDVFMKGLSMAK (SEQ ID NO: 14)~~

~~MDVFMKGLSMA (SEQ ID NO: 15)~~

~~MDVFMKGLSM (SEQ ID NO: 16)~~

~~MDVFMKGLS (SEQ ID NO: 17)~~

~~MDVFMKGL (SEQ ID NO: 18)~~

~~MDVFMKC (SEQ ID NO: 19)~~

~~MDVFMK (SEQ ID NO: 20)~~

~~MDVFM (SEQ ID NO: 21)~~

~~MDVF (SEQ ID NO: 22)~~

~~DVFMKGLSMAKEG (SEQ ID NO: 23)~~

~~DVFMKGLSMAKE (SEQ ID NO: 24)~~

~~DVFMKGLSMAK (SEQ ID NO: 25)~~

~~DVFMKGLSMA (SEQ ID NO: 26)~~

~~DVFMKGLSM (SEQ ID NO: 27)~~

~~DVFMKGLS (SEQ ID NO: 28)~~

~~DVFMKGL (SEQ ID NO: 29)~~

~~DVFMKC (SEQ ID NO: 30)~~

~~DVFMK (SEQ ID NO: 31)~~

~~DVFM (SEQ ID NO: 32)~~

~~DVF (SEQ ID NO: 33)~~

~~GLSMAKEG (SEQ ID NO: 34)~~

~~GLSMAKE (SEQ ID NO: 35)~~

~~GLSMAK (SEQ ID NO: 36)~~

~~GLSMA (SEQ ID NO: 37)~~

~~GLSM (SEQ ID NO: 38)~~

~~GLS (SEQ ID NO: 39)~~

~~GL (SEQ ID NO: 40)~~

~~LSMAKEG (SEQ ID NO: 41)~~

~~LSMAKE (SEQ ID NO: 42)~~

~~LSMAK (SEQ ID NO: 43)~~

~~LSMA (SEQ ID NO: 44)~~

~~LSM (SEQ ID NO: 45)~~

~~LS (SEQ ID NO: 46)~~

2. (previously presented) The peptide according to claim 1, whereby the individual components are L-amino acids.

3. (previously presented) The peptide according to claim 1, whereby the individual amino acids are D-amino acids.

4. (previously presented) The peptide according to claim 1, in which the amino acid proline is substituted in the N-terminal position.

5. (previously presented) The peptide according to claim 1, in which the amino acid proline is substituted in the C-terminal position.

6. (previously presented) The peptide according to claim 1, in which the amino acid proline is substituted in the N-terminal position and in the C-terminal position.

7. (previously presented) The peptide according to claim 1, which are acetylated in the N-terminal position.

8. (previously presented) The peptide according to claim 1, which are amidated in the C-terminal position.

9. (previously presented) The peptide according to claim 7, which are acetylated in the N-terminal position and amidated in the C-terminal position.

10. (withdrawn) The peptide according to claim 1, characterized in that the amino acid valine (V) is replaced by the amino acid proline (P).

11. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of diseases in which the increased occurrence of free radicals plays a pathophysiological

role, ~~characterized by~~ comprising at least one peptide according to claim 1.

12. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of diseases with acute hypoxia or ischemia in an organ system of the body, ~~in particular in the central nervous system, characterized by~~ comprising at least one peptide according to claim 1.

13. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of Recklinghausen-Appelbaum diseases, ~~such as the Hallervorden-Spatz disease, characterized by~~ comprising at least one peptide according to claim 1.

14. (currently amended) A ~~pharmaceutical agent~~ composition for use in the therapy of neurodegenerative diseases, ~~in particular Alzheimer's disease, the Lewy Body variant of Alzheimer's disease, Parkinson's disease, the multisystem atrophy, the Lewy Body dementia or Huntington's chorea, and all states similar to these neurodegenerative diseases, characterized by~~ comprising at least one peptide according to claim 1 as an active ingredient.

15. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is prepared suitable for oral administration.

16. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for rectal administration.

17. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a

pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration by inhalation.

18. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for transdermal administration.

19. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for transmucosal administration.

20. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration via active ingredient-containing implants.

21. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for intracerebroventricular administration.

22. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration by injection.

23. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a pharmaceutically acceptable carrier which is ~~prepared~~ suitable for transnasal administration.

24. (currently amended) ~~A pharmaceutical agent~~ The composition according to claim 11, further comprising a

pharmaceutically acceptable carrier which is ~~prepared~~ suitable for administration by infusion.

25-26. (canceled)

27. (new) A peptide consisting of an amino acid sequence SMAKEGV (SEQ ID NO: 8), wherein the peptide antagonizes the influence of toxic or vitality-damaging noxae of neurodegenerative diseases.

28. (new) A composition comprising:

the peptide according to claim 27; and

a pharmaceutically acceptable vehicle selected from the group consisting of a vehicle for oral administration, a vehicle for rectal administration, a vehicle for inhalation, a vehicle for transdermal administration, a vehicle for transmucosal administration, for a vehicle for administration via active ingredient-containing implants, a vehicle for intracerebroventricular administration, a vehicle for injection, a vehicle for transnasal administration and a vehicle for administration by infusion.

29. (new) A peptide comprising:

an amino acid sequence selected from the group consisting of VFMKGLSMAKEGV (SEQ ID NO: 2), FMKGLSMAKEGV (SEQ ID NO: 3), MKGLSMAKEGV (SEQ ID NO: 4), KGLSMAKEGV (SEQ ID NO: 5), GLSMAKEGV (SEQ ID NO: 6), and LSMAKEGV (SEQ ID NO: 7) and SMAKEGV (SEQ ID NO: 8), wherein,

said peptide has less than 15 amino acids, and

said peptide is from the N-terminal sequence of beta-synuclein and antagonizes the influence of toxic or vitality-damaging noxae of neurodegenerative diseases.